REMARKS

The Applicants thank Examiner Srivastava for the interview on September 25, 2003. During that interview, we discussed the fact that the Examiner had previously rejected many of the claims in view of Ahmad, *et al.*, U.S. Patent 6,263,507 (Ahmad).

Applicants agree that Ahmad is indeed a system for enabling a body of information to be displayed and retrieved in a flexible manner. Ahmad refers to his system as a "news browser" that enables acquisition and subsequent review of news stories obtained from a variety of sources (Ahmad; column 3, lines 4-7).

The Ahmad system automatically identifies news stories that are related to other news stories. For example, one or more text news stories (that is, news stories obtained from traditional print media or from electronic publications) can be automatically identified as being related to a television news story (Ahmad; column 3, lines 45-51). Ahmad automatically matches related story segments by comparing the contents of a segment to the contents of one or more previously categorized segments (Ahmad; column 3, lines 60-67).

One method Ahmad uses is to determine a degree of similarity using via relevance feedback (Ahmad; column 7, lines 39-43). The use of relevance feedback requires that sets of text data must be generated to represent both segments. For example, speech recognition methods are used to first create a transcript of the spoken portion of an audio and/or video data segment (Ahmad; column 17, lines 26-41).

Further details of Ahmad's method for determining a degree of relatedness between two segments are described at column 28, line 36 through column 29, line 3. Here it is discussed that text for each segment is represented as a vector with each component of the vector corresponding to a word. A value for each component is given as the number of occurrences of that word in the segment. The degree of similarity between two segments is then determined by calculating the magnitude of the dot product of the two vectors.

Ahmad also discusses an information structuring method that allows for partitioning or "segmenting" of data. He recognizes that such partitioning may be performed by analyzing the data to identify breaks. Ahmad recognizes, for example, that text sources typically include text markers that identify breaks between segments. Similarly, Ahmad notices that the text transcripts which often accompany audiovisual sources also frequently include markers that

identify breaks between segments, and that closed caption text data often include species characters that indicate breaks between segments (Ahmad, column 23, lines 29-40). Ahmad also recognizes that where such markers are not present, text data can be partitioned based upon analysis of the content of the text data. For example, he mentions that identification of the occurrence of a particular word, sequence of words, or patterns of words can be used to determine transitions between segments (Ahmad, column 23, lines 50-59).

Ahmad thus does provide for both (a) partitioning of segments and (b) determining if the content of two segments is related. However, Ahmad does not recognize or appreciate the advantage of recognizing the type of program to which a multimedia presentation belongs.

In other words, the Applicant is concerned with determining a sequence of expected event cues in order to recognize that a presentation belongs to a class of program types, instead of simply breaking a source file into segments and then determining a degree of similarity to other segments.

In other words, Ahmad is a method for determining if two segments are related to a given subject by comparing their content, that is, by mathematically scoring the degree of similarity of the words within a text representation of the two segments.

In contrast to this, the Applicants' invention determines if a presentation belongs to a certain class of generic presentations, by matching event cues to a finite state automaton that represents the presentation. These steps are now a prominent feature of Applicants' claims.

The two approaches are not the same at all. Consider that two presentations may have completely different subject matter and yet belong to the same class of presentation. It is also possible for two presentations to relate to the same subject but belong to a different presentation class. What Ahmad does and what the Applicants claim as their invention therefore must be different.

Consider that within the news stories discussed in the Applicant's specification, two multimedia presentations may each represent a recording of a broadcast news program, such as CNN World News. If two CNN World News presentations are recorded six months apart from one another, it is highly unlikely that they would have any overlapping subject matter whatsoever. Thus, Ahmad would classify these differently. However, both CNN World News programs would belong to exactly the same class of presentation, i.e., a class called "CNN World

News" and the Applicants' invention would recognize them as belonging to the same class. Thus, the Applicants' finite state automaton result for two CNN World News presentations, although their content would be completely different, would be the same.

In addition, consider that on a given day a CNN World News program may largely have the same content as a "News Hour With Jim Lehrer" presentation on PBS. Ahamd would classify these programs to be the same. However, even though their content is similar, since their presentation formats are quite different, the Applicants' automata would classify these two broadcasts differently.

It is also important to recognize that the Applicants' finite automata defines a time sequence of events, that is, a combination of events that happen in different streams of information, and which happen in a particular expected time sequence. The Applicant thus developes a model of the "format" of the news, not its content, as a finite state automaton having various states and state transitions. The result will be markedly different from the word matching scores employed by Ahmad.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By _____

David J. Thibodeau, Jr.
Registration No. 31,671
Telephone: (978) 341-0036
Facsimile: (978) 341-0136

Concord, MA 01742-9133
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